

ture not allowing a shift of names to express natural relationships. The following are the localities from which we have these forms.

PAPUINA ALBOCARINATA (E. A. Smith). *Helix (Papuina) albocarinata* Smith 1887, Ann. Mag. Nat. Hist. (5), 19, p. 422, pl. 15, fig. 12 (South Cape, British New Guinea).

Sinaketa, southern Kiriwina Island, Trobriand Islands.

PAPUINA ALBOCARINATA TROBRIANDENSIS (Hedley). *Geotrochus trobriandensis* Hedley 1891, Proc. Linn. Soc. New South Wales, 6, p. 92, pl. 11, fig. 28 (Trobriand Islands).

Sinaketa, southern Kiriwina Island, Trobriand Islands; Omarakana, central Kiriwina Island, Trobriand Islands; 3 miles above Losuia, northern Kiriwina Island, Trobriand Islands; Kaileuna Island, Trobriand Islands; Seymour Bay, Fergusson Island, D'Entrecasteaux Islands.

This same sending included a large series of *Papuina rollisiana* Smith from Seymour Bay, Fergusson Island, D'Entrecasteaux Islands. Smith (loc. cit. p. 423) gave South Cape, British New Guinea as the type locality. This locality is open to question for both this species and *Papuina albocarinata*.

The following measurements are based upon a selected series of *P. rollisiana* to show a size range from this locality.

Greater diameter, 25.5, 28, 32.2, 35; lesser diameter, 19.5, 21, 23.4, 25.5; height, 18.4, 15.5, 19, 22 mm.

A NEW PLEISTOCENE MECOLIOTIA FROM CUBA

BY W. J. CLENCH AND C. G. AGUAYO

Dr. P. Bermudez has very kindly turned over to us a series of fossil shells collected by him in the Pleistocene formation of Matanzas, $\frac{1}{2}$ km. south of the mouth of the Rio Canimar. Late Tertiary and Pleistocene formations in Cuba have been little studied from the conchological standpoint. We quote the following note from Dr. Bermudez who has specialized on micropaleontology: "The Yumuri river marl (Cushman 1919, Carnegie Institution, publication 291, p. 29) collected by T. W. Vaughan seems to have the same fauna found at the Rio Canimar. Cushman states that the Yumuri fauna belongs to the Miocene, but

the study of the foraminifera of Canimar shows rather a late Tertiary or Pleistocene age. The fauna of the Canimar is well developed and has about 200 well preserved species, which apparently lived in about 100 to 150 fathoms.”

In addition to the new species described below, the following genera of mollusks and one brachiopod occur at this place: one *Meioceras*, apparently related to the living species *bermudezi* Pils. & Ag.; one species of *Caecum* probably in the group of *C. glabrum* Mont.; one hydrobiid and several embryonic and imperfect specimens that cannot be determined. The single brachiopod is *Argyrotheca bermudana* Dall, or at least very close to that species.

MECOLIOTIA BERMUDEZI, new species. Pl. 5, fig. 3.

Description.—Shell very small, solid, trochiform and narrowly perforate. Whorls 8, nuclear whorls ($2\frac{1}{2}$) smooth, convex, the second whorl noticeably larger than the third whorl. Third to eighth whorls nearly flat sided. Sculpture: third to eighth whorl nodulose, the nodules arranged spirally in three rows on the body whorl and two rows on the two preceding whorls. In addition to the spiral arrangement, the nodules are in an axial pattern, set somewhat obliquely to the axis. The middle spiral row is slightly more elevated than the remaining marginal rows and tends to form a somewhat noticeable angulated periphery on the body whorl. The two post embryonic whorls have an axial arrangement of the nodules or bosses which are more pronounced than the spiral formation, the two opposing nodules being connected by a depressed ridge. No microscopic sculpture is visible under high power. Perforation small and margined by a small ridge. Base with a series of small, rounded nodules surrounding the umbilical ridge. Aperture circular, duplex with an expanded circular varix behind. Inner lip thrust up through the second, producing a flange.

Height, 2.5; width, 1.1; aperture, .4 mm. Holotype.

Holotype.—Mus. Comp. Zoöl. no. 110615, $\frac{1}{2}$ km. south of the mouth of the Rio Canimar, Matanzas, Cuba. P. J. Bermudez collector, 1934.

Remarks.—This is the first recorded species in this genus, either fossil or recent, from the Atlantic. It appears to be most closely related to *Mecoliotia halligani* Hedley from Tutaga Island, Funafuti atoll, Ellice Group, western Pacific. It differs from that species by being larger and proportionately more slender. In

addition, the second nuclear whorl in *M. bermudezi* is larger than the third whorl, a character not exhibited by *M. halligani*. Sculpture characters differ slightly. In *bermudezi* the middle spiral line of nodules is about equal in size and height to the two marginal rows; in *halligani*, the middle row is more elevated and tends somewhat to produce a peripheral angulation. This latter species has the whorls more convex and more sharply differentiated. Apertural characters appear to be similar. The only other species known to us are those described by Iredale from Christmas Island, south of Java, as *Pickworthia andrewsi*, *P. kirkpatricki* and *Reynellona natalis*. All of these latter species are *Mecoliotia* according to Thiele. They differ from our form by possessing entirely different sculpture, and not having the nuclear whorls particularly differentiated from the later portion of the shells.

**STUDIES OF AFRICAN LAND AND FRESH-WATER
MOLLUSKS, X.—GULELLA PUMILIO (GOULD)
AND TWO SPECIES CONFUSED WITH IT**

BY J. BEQUAERT AND W. J. CLENCH

While arranging the African Streptaxidae in the Museum of Comparative Zoölogy, two different species were found labelled "*Pupa pumilio* Gould," one being a *Gulella*, the other a *Ptychotrema*. Gould's description is too indefinite to decide which he had before him, and he might even have had both. Fortunately, the types of *Pupa pumilio* are at the New York State Museum, in Albany, where the senior author was privileged to study them, through the kindness of Dr. Chas. C. Adams, Director of the Museum.

GULELLA PUMILIO (Gould). Plate 6, Figs. 1 and 2.

Pupa pumilio Gould, 1843, Proc. Boston Soc. Nat. Hist., I, p. 158 ("Africa"; part of a lot collected by Dr. George A. Perkins, which on p. 153 is stated to have come from Cape Palmas, Liberia). Pfeiffer, 1853, Mon. Helic. Viv., III, p. 541 (description of a specimen in Cuming's collection). Küster, 1854 (?), Syst. Conch.-Cab., I, Abt. 15, p. 160, Pl. XIX, figs. 13-15 (specimen from Cuming's collection).

Pupa [*Ennea*] *pumilio* Gould, 1862, Otia Conchol., p. 193. E. v. Martens, 1860, in Albers, Die Heliceen, 2nd Edition, p. 302.